

August 31, 2006

06ENV-039

US EPA Region 7
Federal Building
210 Walnut Street, Room 473
Des Moines, IA 50309-2109
Attn: Gary Witkovski

Subject: Climax Molybdenum Company EPA RCRA ID# IAD000222653
Initial Response for RCRA Audit Performed on 08/22/2006

Dear Mr. Witkovski,

This letter contains our initial written responses to the findings from your site inspection conducted on August 22, 2006 at our facility in Fort Madison, Iowa. Per your request, we are sending this initial response within 14 days, but it does not contain the requested analytical testing results, which takes more than 14 days to obtain. The results of the testing will be forwarded to you upon receipt from the testing laboratory. Our responses follow below:

Alleged Violation No. 1 40CFR 279.22(C) Used oil containers not labeled "Used Oil"

On August 22, 2006, at your suggestion, we labeled the drums at issue "Used Oil", placed suitable covers on the drums, and covered the drums on the pallet with plastic while they are awaiting use. During the inspection, we indicated that this material was not used, but rather virgin product for which we had not obtained alternate use. We continue to investigate alternate uses for this product.

Upon closer review of the definition of "used oil" (any oil that has been refined from crude oil, or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities 40 CFR 279.1), we do not believe that the material qualifies as used oil because the material remaining in the drums has never been used and is not contaminated by physical or chemical impurities. As such, we believe that the alleged violation should be rescinded.

Alleged Violation No. 2 40CFR 262.11 Failure to make hazardous waste determinations on:
a. Baghouse dust
b. Spent parts washer solvent

On August 23, 2006, we obtained samples from the drum under the welder baghouse and from the drum containing used Electra 221 parts washer solvent in the maintenance shop. The samples have been submitted to the University Hygienic Laboratory in Ankeny, Iowa for TCLP testing. The results from these analyses will be forwarded to your attention upon receipt.

Based on knowledge of the processes generating these two waste streams, we have no reason to believe that the streams are "hazardous" waste. This knowledge is based on prior TCLP analyses on these products and is properly documented in our files.

RECEIVED

SEP - 5 2006

ARCM/ENSV

REC'D

SEP 11 2006

RESP

470513



The TCLP data for the spent parts washer solvent was found and available during the site inspection on August 22, 2006. The analytical information is attached for your information. The data is from February 2005, and the present parts washer solvent has been in use at the site since 2003 per our purchasing records and is the same part washer solvent observed during the site inspection. As such, we believe these waste streams to be non-hazardous.

For the baghouse dust, utilizing process knowledge and prior TCLP testing found the material to be non-hazardous. The principal components of the baghouse dust are glass beads from our blasting process and floor sweepings from the maintenance shop. Both of these materials have been characterized individually and the TCLP testing completed shows the components to each be non-hazardous for toxicity. Each component does not exhibit any other hazardous waste characteristic and have not been mixed with a listed hazardous waste. As each of the components entering the baghouse have been determined to be non-hazardous, process knowledge leads to the determination that the baghouse dust is non-hazardous as well. The analytical information for the glass beads and floor sweepings is attached for your reference.

As mentioned previously, we will forward to you the results of the most recent laboratory analysis on the samples you requested when they are received by us.

Based on the foregoing, we respectfully request that the notices of violation be rescinded.

If you have any questions, please contact me at (319) 463-2224.

Sincerely,



Scott Ickes
Manager of QA and Environmental Affairs
Climax Molybdenum Co.

TCLP Analysis

Date: 8-25-94
Technician: J. Bartholomew

IV. Final Test Results

Parameter (mg/l)	Test Results	Hazardous Limits
Arsenic	4.1	5.0
Barium	< 1	100.0
Cadmium	.35	1.0
Chromium	2.9	5.0
Lead	< 1.0	5.0
Mercury	< .1	0.2
Selenium	.93	1.0
Silver	< 1	5.0

Classification

Hazardous

Nonhazardous

TCLP Analysis Worksheet

Date: 8-24-94 8-25-94

Technician: _____

III. Extraction Fluid Determination

Initial pH check (pH < 5 use Ext. #1; pH > 5 add acid)	3.52
Acidified pH check (pH < 5 use Ext. #1; pH > 5 use Ext. #2)	
Extraction Fluid Used	(1) 2
Extraction Fluid pH check	4.98
Initial Ext. Fluid + sample pH	4.30

4.32

Filtrate Container Tare wt.	
Sample Container Tare wt.	
Filter Paper Tare wt.	
Filtrate container + Filtrate wt.	
Filtrate wt.	
Filtrate Volume	
Sample Container + Sample wt.	
Sample wt.	100.0
Sample Container + Adhered wt.	
Adhered wt.	
True Sample wt.	100.0
Weight of Extraction Fluid used (20 X %Solids X True Wt. / 100)	1942
Vol of Extraction Fluid used	1942
Extraction Fluid pH	4.98

101.7

101.7

1975

1975

4.98

Initial Extraction Start Time	8-24-94	NOON
Final Extraction Time	8-25-94	8:00 AM
Liquid Phase Extraction vol		
pH After Extraction		4.20

NOON

7:00 AM

4.19

TCLP Analysis Worksheet

I. Sample Information

Sample Name	FLOOR SWEEPINGS
Sample No.	SW 940815
Date Sampled	UNKNOWN
Sample Method	UNKNOWN
Sample Location	LANGLOTH
Sampler	UNKNOWN

Comments:
FLOOR Sweepings from LANGLOTH

Sample from Parts Washer, Used**2-Feb-05****Based on ICP Scans**

Element	Wavelength	Conc. High Std. mg/L	Blank Counts	High Std. Counts	Unknown Counts	Unknown Estimated mg/L	TCLP Limit mg/L
As2	193.695	5	1215	3160	1043	<0.50	5.0
Ba1	455.403	100	1843	5318872	2509	0.3	100.0
Cd1	214.438	1	1965	26027.5	2214	0.2	1.0
Cr3	206.149	5	1662	24417	1398	<0.5	5.0
Pb1**	220.353	5	2417	12595.5	2891	4.7	5.0
Hg9	194.163	----	----	----	----	----	0.2
Se1**	196.026	1	1299	1482.5	1057	<0.10	1.0
Ag1	328.068	15	597	13690	788	4.4	5.0
Mn1	257.61	----	----	----	----	----	----
Mo1	202.03	100	1576	332534	19122	106.0	----
Cu1	324.754	5	1117	26837	2361	4.8	----
Ni3	231.604	5	284	1773.5	442	10.6	----
Fe2	259.94	5	439	6339.5	2124	28.6	----

** The Pb and Ag analysis are probably not this high. Looking at the scans, the error on the high side is most likely due to dilution and the inherent variance of the scans.

Sample preparation: 5 mls sample + 45 mls D.I. water + 10 mls HNO₃ acid.

Boil, reduce to 10 mls volume.

Add 10 mls of HNO₃, cover and reflux for 15 minutes.

Uncover, evaporate to 5 mls, cool, and dilute to 100 mls.

Hazardous Waste Determination Guidance Checklist

This checklist can be used as a tool to help classify waste materials and document the determination process. Federal and state EPA regulations require generators of waste to determine whether a waste is hazardous and document information used in the hazardous waste determination.

GENERAL INFORMATION

Plant Name

: Climax Molybdenum Company

Waste Name

: Parts Washer Solvent

MATERIAL IDENTIFICATION

Provide general information related to the waste material that is generated. Reviewing the material safety data sheet(s) (MSDSs) and having knowledge of the process(es) and wastes generated may prove beneficial when completing this section.

Waste Stream Name or Waste Identification #:

Parts Washer Solvent

Area of Generation:

Maintenance Shop

Describe the waste material, including the physical state (i.e. solid, liquid, gas), known hazards (i.e. flammable, corrosive, toxic), expected or known constituents, and % if known. Specify the generation process including raw materials used, residuals (i.e. dissolved constituents and/or metals), etc.

Solvent MSDS Attached. Used to wash
maintenance parts. Spent solvent recycled by
Safety Kleen

Hazardous Waste Determination Guidance Checklist

WASTE DETERMINATION (Check all that apply)

The first step in the classification process is to determine whether the material meets the definition of a waste. To make this determination, check each box that applies to the material. Once complete; review waste exclusions (40 CFR 261.4) to determine if the material is excluded from the definition of a waste. It is important to remember when proceeding through this section that the definition of a waste is very broad and includes solids, semi-solids, liquids, or confined gases.

The material is being abandoned (40 CFR 261.2 (b))

- ☐ Disposed of;
- ☐ Burned or incinerated;
- ☐ Accumulated, stored, or treated, but not recycled, before or in place of being discarded by being disposed of, burned or incinerated

The material is being recycled, or accumulated, stored or treated before recycling and is managed as indicated below (40 CFR 261.2 (c))

- ☐ Handled in a manner constituting disposal
- ☐ Burned for energy recovery
- ☒ Reclaimed
- ☐ Accumulated speculatively for the purpose of recycling

The material is inherently waste-like when recycled (40 CFR 261.2 (d))

- ☐ Federal EPA Hazardous Waste Code numbers F020, F021, F022, F023, F026, & F028
- ☐ Secondary materials fed to a halogen acid furnace that exhibit characteristics of a Hazardous waste, except for brominated material.

WASTE EXCLUSIONS (40 CFR 261.4)

There are some exclusions that pertain to wastes which are excluded from the definition of a waste and/or hazardous waste, such as domestic sewage, National Pollution Discharge Elimination System (NPDES) permitted discharges, spent sulfuric acid used to produce virgin sulfuric acid, radioactive materials, laboratory wastes, cement kiln dust, wastes generated in process units, household wastes, mining wastes, some scrap metals, and others. Review the exclusions listed in 40 CFR 261.4 and determine whether or not your material is excluded. Once the waste exclusions have been reviewed, proceed to check the box below which indicates the result of your waste determination.

None of the boxes were checked. Thus, the material is not considered a waste. Proceed to the Determination Section.

Hazardous Waste Determination Guidance Checklist

At least one box was checked. The material has been determined to be a waste. However, upon reviewing the exclusions in 40 CFR 261.4, it has been determined that the material is excluded from the definition of a waste. Therefore, the material is not considered a waste and is not a hazardous waste. **Proceed to the Determination Section.**

At least one box was checked. The material has been determined to be a waste and is not excluded from the waste definition per 40 CFR 261.4. To determine whether or not the waste is a hazardous waste, **Proceed to the next Section (Hazardous Waste Determination).**

HAZARDOUS WASTE DETERMINATION

FEDERAL RCRA LISTED WASTES [40 CFR 261.31-33] (Check any that apply)

This section was designed to assist you in determining whether or not your waste is a Federal Resource Conservation and Recovery Act (RCRA) hazardous waste. Review each step and refer to the attached lists or noted regulations in order to fully determine whether or not the waste or process is located on a list. Check each box that applies to your waste and indicate the Federal EPA Hazardous Waste Code (e.g. F006, U093...) in the space provided. When your waste/process has been matched against each list, a determination has been made, and the appropriate box(es) has been checked, proceed to **the next section.**

Process Wastes

- ☐ It is a listed waste from a **non-specific** (generic) process under the "F" listed waste codes [40 CFR 261.31] **WASTE CODE:** _____
- ☐ It is a listed waste from a **specific** process under the "K" listed waste codes [40 CFR 261.32] **WASTE CODE:** _____
- ☒ It is **not** a listed waste under the "F" or "K" listed waste codes.

Discarded Commercial Products/Off-spec Products/Container and Spill Residue

- ☐ The *sole active ingredient* is a listed non-process acute waste per 40 CFR 261.33 ("P" code) **WASTE CODE:** _____
"P" code wastes are considered acutely hazardous wastes (AHW).
 - ☐ The *sole active ingredient* is a listed non-process toxic waste per 40 CFR 261.33 ("U" code) **WASTE CODE:** _____
"U" code wastes are used for wastes that are considered toxic, reactive, ignitable, or corrosive.
 - ☒ It is **not** a listed waste under the "P" or "U" listed waste codes.
 - ☐ None of the boxes were checked. Thus, the material is **not** considered a waste.
- Note: if a listed ingredient is not the *sole active ingredient*, then it is not considered a "U" or "P" waste code.

Proceed to the next Section (Hazardous Waste Physical Characteristics) when complete.

HAZARDOUS WASTE PHYSICAL CHARACTERISTICS (Check all that apply)

Below are hazardous waste physical characteristics that may assist you in the process of properly determining whether your waste is hazardous. Reviewing MSDS(s) and other sources of information may be beneficial when completing this section, especially without the use of laboratory analyses. The characteristics of the waste may be obtainable through generator knowledge and/or laboratory analyses. However, it is important to remember that it is the sole responsibility of the generator to properly determine whether the waste is hazardous or not. Be sure you have data to back your determination!

The waste is **ignitable** per 40 CFR 261.21 (EPA Hazardous Waste Code: D001)

- ☐ Liquid with a flashpoint < 140°F *148°F*
- ☐ Solid capable of causing fire by friction, absorption of moisture, or spontaneous chemical change
- ☐ Compressed gas as defined by 49 Code of Federal Regulations 49 CFR 173.300
Material has a pressure > 40 psi @ 70°F or vapor pressure > 40 psi absolute @ 100°F
- ☐ Oxidizer as defined by 49 CFR 173.151
 - Releases oxygen when reacting with another chemical
 - Reacts with organic materials (e.g. oils, grease, solvents, paper, cloth, wood, etc.) resulting in fire or generation of heat
- ☐ Wastes which may meet this criteria include: solvents, paints, thinners, and adhesives

The waste is **corrosive** per 40 CFR 261.22 (EPA Hazardous Waste Code: D002)

- ☐ Aqueous (liquid) and has a pH < 2 (acid) or > 12.5 (base)
- ☐ Solid (non-liquid) when mixed with equal weight of water has a pH < 2 (acid) or > 12.5 (base)
- ☐ Dissolves/corrodes steel (SAE 1020) at a rate greater than .25 inch per year
- ☐ Wastes which may meet this criteria include: etchants, alkaline degreasers, acids and base

The waste is **reactive** per 40 CFR 261.23 (EPA Hazardous Waste Code: D003)

- ☐ Normally unstable & readily undergoes violent change without detonation
- ☐ Reacts violently with water, or forms potentially explosive mixtures with water
- ☐ Generates toxic gases, vapors or fumes when mixed with water or air
- ☐ Capable of detonation, explosive reaction or explosive decomposition
- ☐ Wastes which may meet this criteria include: chromic acids and cyanide compounds

The waste is **toxic** per 40 CFR 261.24 (EPA Hazardous Waste Code: Varies)

Determining whether or not a waste is hazardous due to its toxicity can be a very complicated process. The toxicity characteristic is the most complex characteristic to determine. This characteristic is based on whether or not a waste exceeds concentrations of certain metals and organics based on analytical results from laboratory analyses. The collection and submission of waste samples for each laboratory analysis can become an expensive endeavor. However, it is important to realize that the generator can save a significant amount of money by better understanding the process and the waste generated by the process. Thus, possibly eliminating or reducing the number of samples needed to properly characterize the waste.

Next, are some hazardous waste tables that may be used to assist you in properly characterizing waste streams. In the tables you will find the name of the constituent and the regulatory limit for that constituent and that particular test. During this phase there are

California (Non-RCRA) regulatory limits and Federal (RCRA) regulatory limits. So, be sure to select which test(s) will provide you with the best results to properly classify your waste. The next five tables consist of substances which are known to be hazardous at/above certain regulatory concentrations. The following tables provide you with the constituents and their regulatory limits associated with a specific laboratory analysis. If you are using laboratory analysis results to aid in the determination of your waste, then proceed to check the appropriate box(es) for each constituent that meets and/or exceeds the regulatory limit in the, particular table. If you still have questions regarding toxicity analyses, then proceed to the last page where you can find some additional information regarding toxicity analysis for wastes.

TABLE 1

Threshold Characteristic Leaching Procedure (TCLP) [RCRA] – This analysis helps determine whether a facility's waste is a RCRA hazardous waste and is the least expensive. This analysis should be the first step if you are uncertain what may be in your wastestream or you suspect that your wastestream contains any of the constituents listed below. Compare analytical data to the constituents listed below and determine whether they meet or exceed the regulatory limits in the table. Check the appropriate box(es). If no constituents are identified at or above the listed regulatory limit, ~~proceed to Table 2.~~ Note: The EPA Hazardous Waste Code (in parenthesis) is located next to the regulatory concentration limit for each constituent.

TCLP (mg/l) [40 CFR 261.24(b)(1)]

- ☐ Arsenic > 5.0 mg/l (D004)
- ☐ Barium >100 mg/l (D005)
- ☐ Benzene >0.5 mg/l (D018)
- ☐ Cadmium >1.0 mg/l (D006)
- ☐ Carbon Tetrachloride >0.5 mg/l (D019)
- ☐ Chlordane >0.03 mg/l (D020)
- ☐ Chlorobenzene >100 mg/l (D021)
- ☐ Chloroform >6.0 mg/l (D022)
- ☐ Chromium >5.0 mg/l (D007)
- ☐ o-cresol >200.0 mg/l (D023)
- ☐ m-cresol >200.0 mg/l (D024)
- ☐ p-cresol >200.0 mg/l (D025)
- ☐ Cresol >200.0 mg/l (D026)
- ☐ 2,4-D > 10.0 mg/l (D016)
- ☐ 1,4-Dichlorobenzene >7.5 mg/l (D027)
- ☐ 1,2-Dichloroethane >0.5 mg/l (D028)
- ☐ 1,1-Dichloroethylene >0.7 mg/l (D029)
- ☐ 2,4-Dinitrotoluene >0.13 mg/l (D030)
- ☐ Endrin >0.02 mg/l (D012)
- ☐ Heptachlor(and epoxide) >.008 mg/l (D031)
- ☐ Hexachlorobenzene >.13 mg/l (D032)
- ☐ Hexachlorobutadiene >0.5 mg/l (D033)
- ☐ Hexachloroethane >3.0 mg/l (D034)
- ☐ Lead > 5.0 mg/l (D008)
- ☐ Lindane >0.4 mg/l (D013)
- ☐ Mercury >0.2 mg/l (D009)
- ☐ Methoxychlor >10.0 mg/l (D014)
- ☐ Methyl ethyl ketone >200.0 mg/l (D035)
- ☐ Nitrobenzene >2.0 mg/l (D036)
- ☐ Pentachlorophenol >100.0 mg/l (D037)

- ☐ Pyridine >5.0 mg/l (D038)
- ☐ Selenium >1.0 mg/l (D010)
- ☐ Silver >5.0 mg/l (D011)
- ☐ Tetrachloroethylene >0.7 mg/l (D039)
- ☐ Toxaphene >0.5 mg/l (D015)
- ☐ Trichloroethylene >0.5 mg/l (D040)
- ☐ 2,4,5-Trichlorophenol >400.0 mg/l (D041)
- ☐ 2,4,6-Trichlorophenol >2.0 mg/l (D042)
- ☐ 2,4,5-TP (Silvex) >1.0 mg/l (D017)
- ☐ Vinyl Chloride >0.2 mg/l (D043)
- ☐ No testing was conducted.

ADDITIONAL INFORMATION (Check if applies)

This waste has been classified using some form of generator knowledge (MSDS, knowledge of similar wastes or process knowledge, etc.). See attached documents which support this determination.

DETERMINATION

The material is a **hazardous waste**.

The material is a **non-hazardous waste**.

Other (i.e. universal waste, special waste, etc.). MSDS Attached

Reasoning: Material does not contain hazardous constituents nor is it flammable, toxic or corrosive.

Note: attach any and all documentation (i.e. MSDSs, laboratory analyses, generator knowledge, calibration records, etc.) associated with the determination of this waste.

This waste may be disposed of at the following facilities: Safety Klean

Original 2/23/96

revised 12/14/98

revised 2/05

TCLP Analysis Worksheet

I. Sample Information

Sample Name	GLASS BLASTING BEADS USED
Sample No.	GB 0303114
Date Sampled	MARCH 11, 2003
Sample Method	GRAB
Sample Location	BLASTING CABINET
Sampler	J. Bartholomew

Comments:

TCLP Analysis

GB Ø3Ø3114
glass Beads USED
≈ 6 months used

Date: 4-8-03
Technician: J. Bartholomew

IV. Final Test Results

	Parameter (mg/l)	Test Results	Hazardous Limits
4-8-03	Arsenic	< 0.007	5.0
4-9-03	Barium	< 10	100.0
4-9-03	Cadmium	< 0.1	1.0
4-9-03	Chromium	< 0.5	5.0
4-9-03	Lead	< 0.5	5.0
	Mercury UHL	< .0002	0.2
4-8-03	Selenium	0.011	1.0
	Silver UHL	< .01	5.0
4-9-03	Mo	2.0	NA

Classification

Hazardous
Nonhazardous

Hazardous Waste Determination Guidance Checklist

This checklist can be used as a tool to help classify waste materials and document the determination process. Federal and state EPA regulations require generators of *waste* to determine whether a waste is hazardous and document information used in the hazardous waste determination.

GENERAL INFORMATION

Plant Name : Climax Molybdenum Company
Waste Name : Lead blast media

MATERIAL IDENTIFICATION

Provide general information related to the waste material that is generated. Reviewing the material safety data sheet(s) (MSDSs) and having knowledge of the process(es) and wastes generated may prove beneficial when completing this section.

Waste Stream Name or Waste Identification #: Lead blast media

Area of Generation: Maintenance Area

Describe the waste material, including the physical state (i.e. solid, liquid, gas), known hazards (i.e. flammable, corrosive, toxic), expected or known constituents, and % if known. Specify the generation process including raw materials used, residuals (i.e. dissolved constituents and/or metals), etc.

Solid beads from Sand blasting in
Maintenance Area

Hazardous Waste Determination Guidance Checklist

WASTE DETERMINATION (Check all that apply)

The first step in the classification process is to determine whether the material meets the definition of a waste. To make this determination, check each box that applies to the material. Once complete; review waste exclusions (40 CFR 261.4) to determine if the material is excluded from the definition of a waste. It is important to remember when proceeding through this section that the definition of a waste is very broad and includes solids, semi-solids, liquids, or confined gases.

The material is being abandoned (40 CFR 261.2 (b))

- ☐ Disposed of;
- ☐ Burned or incinerated;
- ☒ Accumulated, stored, or treated, but not recycled, before or in place of being discarded by being disposed of, burned or incinerated

The material is being recycled, or accumulated, stored or treated before recycling and is managed as indicated below (40 CFR 261.2 (c))

- ☐ Handled in a manner constituting disposal
- ☐ Burned for energy recovery
- ☐ Reclaimed
- ☐ Accumulated speculatively for the purpose of recycling

The material is inherently waste-like when recycled (40 CFR 261.2 (d))

- ☐ Federal EPA Hazardous Waste Code numbers F020, F021, F022, F023, F026, & F028
- ☐ Secondary materials fed to a halogen acid furnace that exhibit characteristics of a Hazardous waste, except for brominated material.

WASTE EXCLUSIONS (40 CFR 261.4)

There are some exclusions that pertain to wastes which are excluded from the definition of a waste and/or hazardous waste, such as domestic sewage, National Pollution Discharge Elimination System (NPDES) permitted discharges, spent sulfuric acid used to produce virgin sulfuric acid, radioactive materials, laboratory wastes, cement kiln dust, wastes generated in process units, household wastes, mining wastes, some scrap metals, and others. Review the exclusions listed in 40 CFR 261.4 and determine whether or not your material is excluded. Once the waste exclusions have been reviewed, proceed to check the box below which indicates the result of your waste determination.

None of the boxes were checked. Thus, the material is **not** considered a waste. **Proceed to the Determination Section.**

Hazardous Waste Determination Guidance Checklist

At least one box was checked. The material has been determined to be a waste. However, upon reviewing the exclusions in 40 CFR 261.4, it has been determined that the material is excluded from the definition of a waste. Therefore, the material is not considered a waste and is not a hazardous waste. **Proceed to the Determination Section.**

At least one box was checked. The material has been determined to be a waste and is not excluded from the waste definition per 40 CFR 261.4. To determine whether or not the waste is a hazardous waste, **Proceed to the next Section (Hazardous Waste Determination).**

HAZARDOUS WASTE DETERMINATION

FEDERAL RCRA LISTED WASTES [40 CFR 261.31-33] (Check any that apply)

This section was designed to assist you in determining whether or not your waste is a Federal Resource Conservation and Recovery Act (RCRA) hazardous waste. Review each step and refer to the attached lists or noted regulations in order to fully determine whether or not the waste or process is located on a list. Check each box that applies to your waste and indicate the Federal EPA Hazardous Waste Code (e.g. F006, U093...) in the space provided. When your waste/process has been matched against each list, a determination has been made, and the appropriate box(es) has been checked, proceed to **the next section**.

Process Wastes

- ☐ It is a listed waste from a **non-specific** (generic) process under the "F" listed waste codes [40 CFR 261.31] **WASTE CODE:** _____
- ☐ It is a listed waste from a **specific** process under the "K" listed waste codes [40 CFR 261.32] **WASTE CODE:** _____
- ☒ It is **not** a listed waste under the "F" or "K" listed waste codes.

Discarded Commercial Products/Off-spec Products/Container and Spill Residue

- ☐ The *sole active ingredient* is a listed non-process acute waste per 40 CFR 261.33 ("P" code) **WASTE CODE:** _____
"P" code wastes are considered acutely hazardous wastes (AHW).
- ☐ The *sole active ingredient* is a listed non-process toxic waste per 40 CFR 261.33 ("U" code) **WASTE CODE:** _____
"U" code wastes are used for wastes that are considered toxic, reactive, ignitable, or corrosive.
- ☒ It is **not** a listed waste under the "P" or "U" listed waste codes.

☒ None of the boxes were checked. Thus, the material is **not** considered a waste.
Note: if a listed ingredient is not the *sole active ingredient*, then it is not considered a "U" or "P" waste code.

Proceed to the next Section (Hazardous Waste Physical Characteristics) when complete.

HAZARDOUS WASTE PHYSICAL CHARACTERISTICS (Check all that apply)

Below are hazardous waste physical characteristics that may assist you in the process of properly determining whether your waste is hazardous. Reviewing MSDS(s) and other sources of information may be beneficial when completing this section, especially without the use of laboratory analyses. The characteristics of the waste may be obtainable through generator knowledge and/or laboratory analyses. However, it is important to remember that it is the sole responsibility of the generator to properly determine whether the waste is hazardous or not. Be sure you have data to back your determination!

The waste is **ignitable** per 40 CFR 261.21 (EPA Hazardous Waste Code: D001)

- ☐ Liquid with a flashpoint < 140°F
- ☐ Solid capable of causing fire by friction, absorption of moisture, or spontaneous chemical change
- ☐ Compressed gas as defined by 49 Code of Federal Regulations 49 CFR 173.300
Material has a pressure > 40 psi @ 70°F or vapor pressure > 40 psi absolute @ 100°F
- ☐ Oxidizer as defined by 49 CFR 173.151
 - Releases oxygen when reacting with another chemical
 - Reacts with organic materials (e.g. oils, grease, solvents, paper, cloth, wood, etc.) resulting in fire or generation of heat
- ☐ Wastes which may meet this criteria include: solvents, paints, thinners, and adhesives

The waste is **corrosive** per 40 CFR 261.22 (EPA Hazardous Waste Code: D002)

- ☐ Aqueous (liquid) and has a pH < 2 (acid) or > 12.5 (base)
- ☐ Solid (non-liquid) when mixed with equal weight of water has a pH < 2 (acid) or > 12.5 (base)
- ☐ Dissolves/corrodes steel (SAE 1020) at a rate greater than .25 inch per year
- ☐ Wastes which may meet this criteria include: etchants, alkaline degreasers, acids and base

The waste is **reactive** per 40 CFR 261.23 (EPA Hazardous Waste Code: D003)

- ☐ Normally unstable & readily undergoes violent change without detonation
- ☐ Reacts violently with water, or forms potentially explosive mixtures with water
- ☐ Generates toxic gases, vapors or fumes when mixed with water or air
- ☐ Capable of detonation, explosive reaction or explosive decomposition
- ☐ Wastes which may meet this criteria include: chromic acids and cyanide compounds

The waste is **toxic** per 40 CFR 261.24 (EPA Hazardous Waste Code: Varies)

Determining whether or not a waste is hazardous due to its toxicity can be a very complicated process. The toxicity characteristic is the most complex characteristic to determine. This characteristic is based on whether or not a waste exceeds concentrations of certain metals and organics based on analytical results from laboratory analyses. The collection and submission of waste samples for each laboratory analysis can become an expensive endeavor. However, it is important to realize that the generator can save a significant amount of money by better understanding the process and the waste generated by the process. Thus, possibly eliminating or reducing the number of samples needed to properly characterize the waste.

Next, are some hazardous waste tables that may be used to assist you in properly characterizing waste streams. In the tables you will find the name of the constituent and the regulatory limit for that constituent and that particular test. During this phase there are

California (Non-RCRA) regulatory limits and Federal (RCRA) regulatory limits. So, be sure to select which test(s) will provide you with the best results to properly classify your waste. The next five tables consist of substances which are known to be hazardous at/above certain regulatory concentrations. The following tables provide you with the constituents and their regulatory limits associated with a specific laboratory analysis. If you are using laboratory analysis results to aid in the determination of your waste, then proceed to check the appropriate box(es) for each constituent that meets and/or exceeds the regulatory limit in the, particular table. If you still have questions regarding toxicity analyses, then proceed to the last page where you can find some additional information regarding toxicity analysis for wastes.

TABLE 1

Threshold Characteristic Leaching Procedure (TCLP) [RCRA] – This analysis helps determine whether a facility's waste is a RCRA hazardous waste and is the least expensive. This analysis should be the first step if you are uncertain what may be in your wastestream or you suspect that your wastestream contains any of the constituents listed below. Compare analytical data to the constituents listed below and determine whether they meet or exceed the regulatory limits in the table. Check the appropriate box(es). If no constituents are identified at or above the listed regulatory limit, proceed to **Table 2**. Note: The EPA Hazardous Waste Code (in parenthesis) is located next to the regulatory concentration limit for each constituent.

TCLP (mg/l) [40 CFR 261.24(b)(1)]

- ☐ Arsenic > 5.0 mg/l (D004)
- ☐ Barium >100 mg/l (D005)
- ☐ Benzene >0.5 mg/l (D018)
- ☐ Cadmium >1.0 mg/l (D006)
- ☐ Carbon Tetrachloride >0.5 mg/l (D019)
- ☐ Chlordane >0.03 mg/l (D020)
- ☐ Chlorobenzene >100 mg/l (D021)
- ☐ Chloroform >6.0 mg/l (D022)
- ☐ Chromium >5.0 mg/l (D007)
- ☐ o-cresol >200.0 mg/l (D023)
- ☐ m-cresol >200.0 mg/l (D024)
- ☐ p-cresol >200.0 mg/l (D025)
- ☐ Cresol >200.0 mg/l (D026)
- ☐ 2,4-D > 10.0 mg/l (D016)
- ☐ 1,4-Dichlorobenzene >7.5 mg/l (D027)
- ☐ 1,2-Dichloroethane >0.5 mg/l (D028)
- ☐ 1,1-Dichloroethylene >0.7 mg/l (D029)
- ☐ 2,4-Dinitrotoluene >0.13 mg/l (D030)
- ☐ Endrin >0.02 mg/l (D012)
- ☐ Heptachlor(and epoxide) >.008 mg/l (D031)
- ☐ Hexachlorobenzene >.13 mg/l (D032)
- ☐ Hexachlorobutadiene >0.5 mg/l (D033)
- ☐ Hexachloroethane >3.0 mg/l (D034)
- ☐ Lead > 5.0 mg/l (D008)
- ☐ Lindane >0.4 mg/l (D013)
- ☐ Mercury >0.2 mg/l (D009)
- ☐ Methoxychlor >10.0 mg/l (D014)
- ☐ Methyl ethyl ketone >200.0 mg/l (D035)
- ☐ Nitrobenzene >2.0 mg/l (D036)
- ☐ Pentachlorophenol >100.0 mg/l (D037)

- ☐ Pyridine >5.0 mg/l (D038)
- ☐ Selenium >1.0 mg/l (D010)
- ☐ Silver >5.0 mg/l (D011)
- ☐ Tetrachloroethylene >0.7 mg/l (D039)
- ☐ Toxaphene >0.5 mg/l (D015)
- ☐ Trichloroethylene >0.5 mg/l (D040)
- ☐ 2,4,5-Trichlorophenol >400.0 mg/l (D041)
- ☐ 2,4,6-Trichlorophenol >2.0 mg/l (D042)
- ☐ 2,4,5-TP (Silvex) >1.0 mg/l (D017)
- ☐ Vinyl Chloride >0.2 mg/l (D043)
- ☐ No testing was conducted.

ADDITIONAL INFORMATION (Check if applies)

This waste has been classified using some form of generator knowledge (MSDS, knowledge of similar wastes or process knowledge, etc.). See attached documents which support this determination.

DETERMINATION

The material is a hazardous waste.

The material is a non-hazardous waste.

Other (i.e. universal waste, special waste, etc.).

Reasoning: TELP tests done and not found to
be hazardous

Note: attach any and all documentation (i.e. MSDSs, laboratory analyses, generator knowledge, calibration records, etc.) associated with the determination of this waste.

This waste may be disposed of at the following facilities: Great River

4/10/2003

Notice of Violation Pursuant to Requirements
of the Resource Conservation and Recovery Act (RCRA)

REC'D
AUG 28 2006
RESP

TO: Facility Name: CLIMAX MOLYBDENUM
Address: 2598 Highway 61
Fort Madison, IA 52627

EPA ID Number: IAD000222653

Date: 8-22-06

This notice is provided to call your attention to the following areas of noncompliance with state and federal regulations. This notice does not constitute a compliance order (Administrative Civil Complaint) pursuant to Section 3008 of RCRA and may not be a complete listing of all violations resulting from the the inspection.

Citation

Description of Violation

1) 40 CFR 279.22(c)

USED OIL CONTAINERS NOT LABELED
"USED OIL."

2) 40 CFR 262.11

FAILURE TO MAKE HAZARDOUS
WASTE DETERMINATIONS ON:

A) BAK HOUSE DUST

B) SPENT PARTS WASHER SOLVENT

You are requested to submit a written response within 14 calendar days of receipt of this notice. Your response should include a description of all corrective actions taken and/or a schedule for completing the necessary corrective actions. The response should be submitted to:

U. S. Environmental Protection Agency, Region VII
Federal Building
210 Walnut Street, Room 473
Des Moines, IA 50309-2109
ATTN: GARY R. WITKOVSKI

If you have any questions about this Notice or wish to discuss your response, you may call me at
(515) 284-4029, or JAMES AYCOCK (Compliance Officer) at
(913) 551-7887.

This Notice prepared by GARY R. WITKOVSKI

Date: 8-22-06

The undersigned person acknowledges that he/she has received a copy of this Notice and has read same.

Printed Name:

Scott Ickes

Date:

8/22/06

Signature:

[Signature]

Title:

Mgr of QA and Environmental Affairs